Remarks

Claims 21-42 are pending.

By way of this paper, claims 21 and 38 have been each amended to recite a process comprising "encapsulating said elastomeric portion(s) on all sides thereof where interconnect(s) are present with a curable resin ..." Claims 41-42 are added new. Support for the amendment is found, among other places, at lines 10-12 of page 10 of the specification, in Figure 3, and in the claims as originally filed. As such, no new matter is introduced by this amendment.

Claims 21-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer (USPN 4,304,749; hereinafter *Bauer*) in view of Desmond (USPN 7,214,348; hereinafter *Desmond*).

Claims 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Bauer* in view of *Desmond*.

Rejection of Claims 21-37 Under 35 U.S.C. 103(a) Over Bauer In View Of Desmond

Claims 21-37 are rejected under 35 U.S.C. 103(a) over *Bauer* in view of *Desmond* (Office Action, paragraph 4).

As stated in paragraph 4 of the Office Action, the Examiner believes that "*Bauer* teaches the basic claimed process including a fluidic device having at least one interconnect (col. 2, lines 28-60; col. 5, lines 15-25; Fig. 1) -- body member 12 and cover plate 13 constitute the at least one elastomeric portion and substrate, and passages 14 and 15 constitute two interconnects . . . Bauer, however, does not teach a microfluidic device. *Desmond* teaches a microfluidic oscillator..."

For at least the reasons given below, Applicants submit that the claims 21-37 are patentable under 35 U.S.C. 103(a) over *Bauer* in view of *Desmond*.

Independent claim 21 in current form recites a process comprising "positioning at least one elastomeric portion onto a rigid substrate, said elastomeric portion containing ... at least one fluid passage; providing at least one interconnect to said elastomeric portion; encapsulating said elastomeric portion(s) on all sides thereof where interconnect(s) are present ..." (Emphasis Added)

Bauer does not teach or suggest the passages 14 and 15 and the body member 12 to be formed through separate steps such as through the steps of "positioning at least one elastomeric portion" and "providing at least one interconnect to said elastomeric portion" as recited in claim 21. As illustratively shown in Figs. 1 and 6, the two passages 14 and 15 of *Bauer* are rather formed along with and integral to the body member 12. Configured as such, the passage 14 and 15 function to conduct fluid to and from the oscillator 10 (col. 2, lines 28-33).

Moreover, *Bauer* offers no teaching or suggestion as to "encapsulating said elastomeric portion (s) on all sides where interconnect(s) are present" as recited in claim 21. *Bauer* teaches injecting plastic material into space 18 (Figure 1). When solidified, the plastic material in space 18 only covers the body member 12 circumferentially along a longitudinal axis of the body member 12. The two end sides of the body member 12 where the passage 14 and 15 are present is devoid of any plastic material, much less encapsulated with a curable resin.

Desmond is cited but fails to cure Bauer's deficient teaching detailed above. Desmond generally teaches a microfluidic device (Abstract). Nowhere in *Desmond* teaches or suggests encapsulating an elastomeric portion on all sides where interconnect(s) are present as recited in claim 21.

Bauer and *Desmond*, alone or in combination, fail to teach or suggest at least one element as recited in independent claim 21. As such, inventions embraced by claim 21 and all the claims dependent therefrom are entitled to patentable weight.

Reconsideration and withdrawal of rejection to claims 21-37 under 35 U.S.C. 103(a) over *Bauer* in view of *Desmond* is solicited.

Rejection Of Claims 38-40 Under 35 U.S.C. 103(a) Over Bauer In View Of Desmond

Claims 38-40 are rejected under 35 U.S.C. 103(a) over *Bauer* in view of *Desmond* (Office Action, paragraph 5).

As stated in paragraph 5 of the Office Action, the Examiner believes that "Bauer teaches the basic claimed process including a fluidic device having at least one interconnect (col. 2, lines 28-60; col. 5, lines 15-25; Fig. 1) -- body member 12 and cover plate 13 constitute the at least one elastomeric portion and substrate, and passages 14 and 15 constitute two interconnects . . . Bauer, however, does not teach a microfluidic device. Desmond teaches a microfluidic oscillator..."

For at least the reasons given below, Applicants submit that the claims 38-40 are patentable under 35 U.S.C. 103(a) over *Bauer* in view of *Desmond*.

Independent claim 38 in current form recites a process comprising "positioning at least one elastomeric portion onto a rigid substrate, said elastomeric portion containing ... at least one fluid passage; providing at least one interconnect to said elastomeric portion; encapsulating said elastomeric portion(s) on all sides thereof where said interconnect(s) are present ..."

Applicants incorporate by reference the entirety of the remarks made herein in connection with *Bauer* and *Desmond*. As stated above, *Bauer* and *Desmond*, alone or in combination, fail to teach or suggest at least the element of encapsulating an elastomeric portion

on all sides thereof where interconnect(s) are present. As such, inventions embraced by claim 38 and all the claims dependent therefrom are entitled to patentable weight.

Reconsideration and withdrawal of rejection to claims 38-40 under 35 U.S.C. 103(a) over *Bauer* in view of *Desmond* is solicited.

Remarks Directed to the Newly Added Claims 41-42

Claims 41-42 are added new. Support for the newly added claims 41-42 is found, among other places, at lines 1-12 of page 10 of the specification and in Figure 3 as originally filed.

The specification of the instant application provides ample support as to when the at least one interconnect is chemically different from the at least one elastomeric portion. By way of example, the interconnects "may be composed entirely of metal tubing which is inserted into or cast into the elastomer" (page 9, lines 16-18). Further, the interconnects may be in the form of optical fibers (page 7, lines 21-23).

The subject matter recited in the claim 41 or 42 is neither taught nor suggested by the prior art and hence believed to be patentable.

The allowability of the claims 41 and 42 is respectfully requested.

Conclusion

Applicants have made a genuine effort to response to each of the Examiner's rejections in advancing the prosecution of this case. Applicants believe that all formal and substantive requirements for patentability have been met and that this case is in condition for allowance, which action is respectfully requested. If a telephone or video conference would help expedite

allowance or resolve any additional questions, such a conference is invited at the Examiner's convenience.

Please charge any fees or credit any overpayments as a result of the filing of this paper to our Deposit Account No. 02-3978.

Respectfully submitted,

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